The invention has now been described in terms of preferred embodiments. Modifications and substitutions will now be apparent to persons or ordinary skill in the art. In particular, the rules for processing ULIs in both the TO and FROM paths may be varied according to specific systems requirements. Therefore, it is not intended that the invention be limited except as provided by the appended claims.

What is claimed is:

1. A method for directly creating a text file of a desired version of a stored module, with the version comprising a plurality of lines of text and included in a development path including several versions, said method comprising the steps of:

storing all lines active in the several versions in the path in an indexed line file; an d

retrieving only those lines active in the desired version from the line file for inclusion in the text file.

2. A method for storing a desired version of a module, where the desired version comprises a plurality of lines of text and is included in a given path which is one of many possible paths, with each path including an ordered set of versions of a common module, with each version identified by a version number, with each version in a path evolving from an immediately preceding version, and where a status history of activations and deletions of each line in a path is stored in a variant history file for the path, said method comprising the steps of:

storing all lines active in all versions in all paths in an indexed line file;

identifying each line in said indexed line file by a unique line identifier (ULI); and

storing a set of records, in the variant history file for the given path, for each ULI identifying a line active in any version in the given path, with each record in a set indicating a version number of a version in a given path where the line identified by the ULI becomes active, or a version number of a version in the given path where the line identified by the ULI is deleted.

3. A method for creating a text file of a desired version of a module, where the desired version is included in a given one of many possible paths, with each path including an ordered set of versions, each identified by a version number, of a common module, with each version in a path evolving from an immediately preceding version, and where a status history of activations and deletions of each line active in any version in a path is stored in a variant history file for the path, and where text of lines active in all versions in all paths is stored in an indexed line file with each line in the indexed line file identified by a unique line identifier (ULI), said method comprising the steps of:

identifying the given path in which the desired version is included and the version number of the desired version in said given path;

searching the variant history file of the given path to determine which lines in the line file are active in the desired version; and

retrieving, from said line file, the text of lines determined to be active in the desired version.

4. The method of claim 3 wherein:

the variant history file of the given path includes an ordered set of records identifying a line active in any version in the given path, with each record in a set comprising an included ULI and indicating a version number in a given path where the line identified by the included ULI becomes active, or a version number in the given path where the line identified by the included ULI is deleted; with the records in said variant history file ordered so that the record indicating a version number of a first given version, in which a given line becomes active, immediately precedes a record indicating the version number of a second given version in which said given line is deleted, and where the records of lines made active in the second given version immediately follow the last record indicating a line is deleted in the second given version, and wherein said step of searching comprises:

reading an adjacent pair of records including a preceding and a following record in said variant history file;

determining whether the included ULIs in said adjacent pair of records are the same;

if the included ULIs are the same, including the identified line in the desired version only if the version number indicated by said following record is greater than the version number of said desired version, if the version number indicated by the preceding record in the pair is less than or equal to the version number of the desired version, and if the identified line indicated by the preceding record in the pair is active; and

if the included ULIs are different, including the identified line in the desired version only if the version number indicated by said preceding record in the pair is less than or equal to the version number of the desired version and if the identified line indicated by the preceding record in the pair is active.

5. The method of claim 3 wherein:

the variant history file of the given path includes a set of records identifying a line active in any version in the given path, with each record in a set comprising an included ULI and indicating one of the version numbers of the versions in a given path where the line identified by the included ULI becomes active, or one of the version numbers of the versions in the given path where the line identified by the included ULI is deleted;

and wherein said step of searching comprises the steps of:

ordering the records in said variant history file so that the record indicating a version number of a first given version, in which a given line becomes active, immediately precedes the record indicating the version number of a second given version in which said given line is deleted, and where the records of lines made active in the second given version immediately follow the last record indicating a line is deleted in the second given version;

reading an adjacent pair of records including a preceding and a following record in said variant history file;

determining whether the included ULIs in said adjacent pair of records are the same;

if the included ULIs are the same, including the identified line in the desired version if the version number indicated by said following record is greater than the version number of said desired version, if the version number indicated by the preceding record in the pair is less than or equal to the version number of the desired version, and if the identified line indicated by the preceding record in the pair is active; and